BRUHAT BANGALORE MAHANAGARA PALIKE

YELHANKA ZONE ELECTRICAL DIVISION

Name of Work:- Detailed Estimate for Providing & Fixing Street Lights With timer in ward no 09 Vidyaranyapura sub division.

Budget Head ..... P-1771 .....

Division No..... Estimate No. ...07/16-17.. For Rs. **3000000.00**

Sl.No.	SR Page & SL No	Description of Work	Qty.	Rate Rs.	Unit	Amount
1	26/4.35.3	LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & FixtureEfficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part III.LED Streetlight 65watts	99	18720.00	Nos	1853280.00
2	108/17.12	Supplying and Fixing of.....mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires. Using 32mm dia G.I.pipe	136	893.00	Each	121448.00

3	12/2.12.1	Wiring for lighting/power circuit using one of PVC insulated 1100v grade stranded **Aluminium** unsheathed wire single core/multi core cable in open or consealed system of wiring. a)4 sqmm.	250	7.50	Each	1875.00
4	56/7.6.1	Supplying of 1.1kv grade Aerial Bunched cable stranded & compacted Aluminium Phase conductor and Stranded Messenger conductor with all aluminium alloy, Phase conductor is insulated with XLPE compound insulated Messenger with specified IS - 14255:1995 & confirming to GTP of group A. 2 X 16 + 1 X 25 SQ.MM	110	92.00	Per Mtr	10120.00
5	Bes SR	Stringing of 1.1kv LT Arial Bunched Cable, BESCOM SR	110	10.30	Per Mtr	1133.00
6	47/6.16.6	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.f)40-63 Amps SP, Group A	6	677.00	Each	4062.00
		6)40-63Amps TPN	3	1936.00		5808.00
7	46/6.12.4	Supply and fixing of 4-pole power contactor with NO/NC contacts on existing wood / panel board using necessary bolts, nuts, washers and wiring etc., complete. d) 100-125 Amps	3	9915.00	Each	29745.00
8	6/2.6.7	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multis and **Copper** conductor single core cable in open or consealed system of wiring.I Group A Materials.g)16 sqmm	23	132.00	Per Mtr	3036.00
9	17/3.10	Supplying and fixing phylum brand hand plastic sheet 3mm thick with necessary niches for fixing switches, regulators etc., and fixing on exisiting wood or metal box using N.F.screws	20000	0.22	Sqcm	4400.00
10	6 2/1.1.2	Open Conduit Systeme: Supplying heavy gauge PVC conditpipe,,,,,,,,,, dia confirming to IS 2509 with suitable size bends,junction boxes, adhesibve paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall stone structure or rawl plug incase of brick walls and cement plastering damaged portion using heavy gauge saddles at an interval of 700mm using NF screws. c)25mm dia 2mm thick	80	70.00	Mtrs	5600.00

11	7 56 /6.40.1	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. And M.S. flat… with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. A)40x40x6mm.	27	263.00	Mtrs	7101.00
12	9 32 / 9	Supplying and fixing electro mechanical timer (without contactor) using necessary bolts, nuts and waqshers etc.. Group B, PWD Elec SR 2006-07.	3	3530.00	Mtrs	10590.00
13	34/5.11	Supplying and stringing of ACSR Conductor (6/2.59mm Al +1/2.59mm Steel).	1000	30.00	Mtrs	30000.00
14	34/5.9.1	Supplying and Fixing .....including all Hardware's etc. complete as per the standard technical specification of BESCOM 1.1 KV Pin Insulator	25	44.00	Nos	1100.00
15	34/5.9.5	No. 8 Strain Insulator	25	14.00	Nos	350.00
16	5.4.2	Supply and fixing of .....cross arm including all Hardware's complete as per the standard technical specification of BESCOM. 2 Pin 45x45x5mm -510mm	30	306.00	Nos	9180.00
17	11 49/6.4.2	Fabricating supplying and mounting MS box made out … SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete.16SWG	75000	0.33	Sqcm	24750.00
18	6/2.6.1	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand Copper conductor single core wire in open or concealed system of wiring as per IS-694:1990 & confirming to GTP of GROUP -B.1 sqmm.	145	10.75	Mtrs	1558.75
19	42/39	Supply and installaion / Fixing / Provision for mounting of HRC Fuse/ MCB with suitable connector/ terminal for 3 Ph / 1 Ph connections with Loop-In & Loop-Out terminals for 10 SQmm/25 Sqmm 3.5 C Al/ Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof having internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and / or grommets. 200x200x98mm	20	925.00	Nos	18500.00

20	21	Supplying and fixing of 125W Garden Lighting Prince MIDI type (Without Lamp) Make : K-Lite or equivalent	32	3900.00	Nos	124800.00
21	108/17.5	Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.	32	176.00	Nos	5632.00
22	4.38.21 P-30	Supply of 125W Mercury Vapour lamp with E27 Base, Lumen output greater than 6000 lumen & CRI 45.Avg Burning life greater than 20,000 hrs.	30	164.00	Nos	4920.00
23	AR	**control and monitoring system** Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.	14	51500.00	Nos	721000.00
		Mislenious				11.25
		Total				**3000000.00**

CERTIFICATE

1. The Place was inspected and work is essential
2. The Provision made in the estimate is adequate and are necessary.
3. The Work comes in the BBMP limit and is legitimate charges on the Corporation Funds.
4. The rates in the Estimate is based on PWD (Elec) SR of 2014-15 .

T.N. Bandi

Jr/Asst. Engineer (Elec)

Asst. Exe.Engineer (Elec)
yelhanka zone
Bruhat Bangalore Mahanagara Palike

Administrative Sanction for Rs. 30.00 lakhs
Thirty Lakh. only
is accorded under P 1771 Zone works
POW -
Registered as EE No. EE/Ele/42/AS/07/16-17 Subject
to conditions contained in e.o. memo No dtd 20-2-17
No. P-No: 50 and 51 SLNo 07/16-17

EXECUTIVE ENGINEER (ELEC)
YELHANKA ZONE
BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer

Technical Sanction
Accorded For 30.00 lakhs
Head of A/C P 1771
CER NO : 165 Dt:.. 08/03/17

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